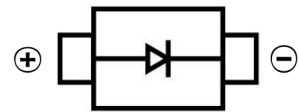


FAST RECOVERY RECTIFIER DIODE**FEATURES**

- Glass Passivated Die Construction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Surface Mount device

**SMA****MECHANICAL DATA**

- Case: SMA(DO-214AC)
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.065 grams (approximate)

MAXIMUM RATINGS AND CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	V
DC Blocking Reverse Voltage	V_R	50	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	V
Maximum Average Forward Rectified Current	I_F	1	A
Non-Repetitive Peak Forward Surge Current @ $t@=8.3\text{ms}$	I_{FSM}	30	A
Reverse Recovery Time(@ $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$)	t_{rr}	150	nS
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	50	$^\circ\text{C/W}$
Junction Temperature	T_J	-55 ~+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			1.3	V	$I_F=1\text{A}$
Reverse current	I_R			5	μA	$V_R=50\text{V}$
Diode capacitance	C_D		10		pF	$V_R=4\text{V}$, $f=1\text{MHz}$

FAST RECOVERY RECTIFIER DIODE

Typical Characteristics

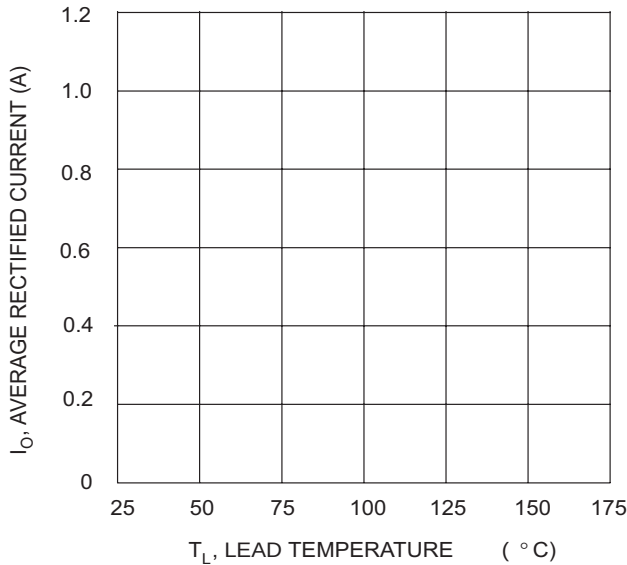


Fig. 1 Forward Current Derating Curve

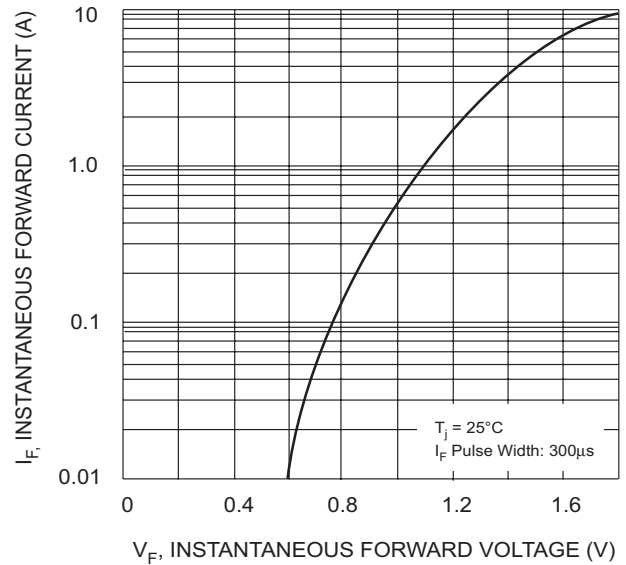


Fig. 2 Typical Forward Characteristics

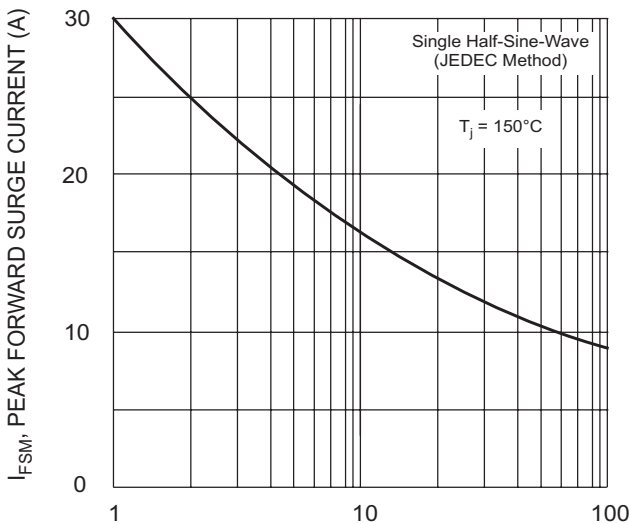


Fig. 3 Forward Surge Current Derating Curve

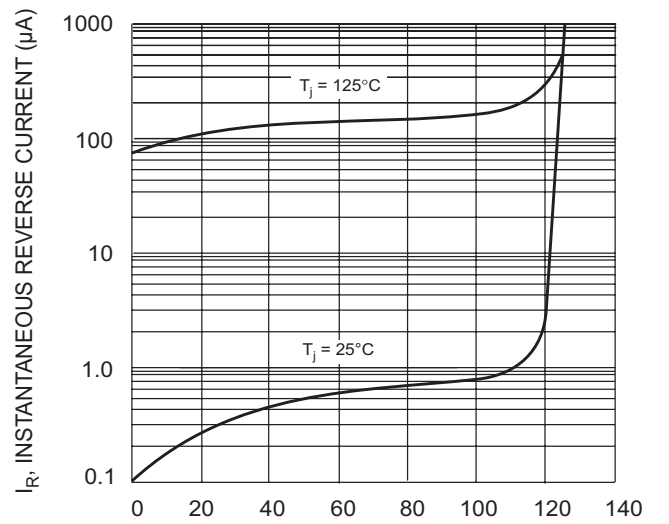
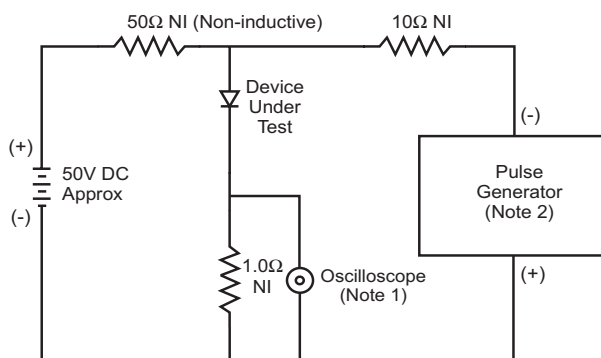
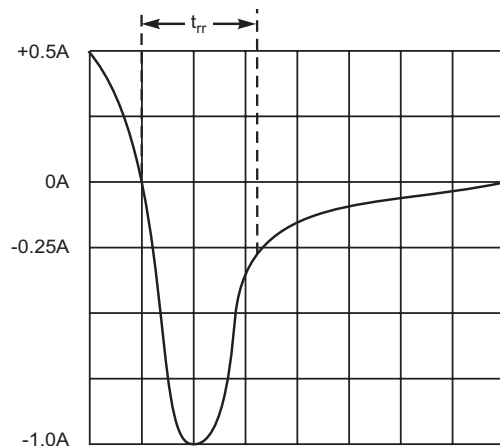


Fig. 4 Typical Reverse Characteristics



Notes:

1. Rise Time = 7.0ns max. Input Impedance = 1.0M Ω , 22pF.
2. Rise Time = 10ns max. Input Impedance = 50 Ω .

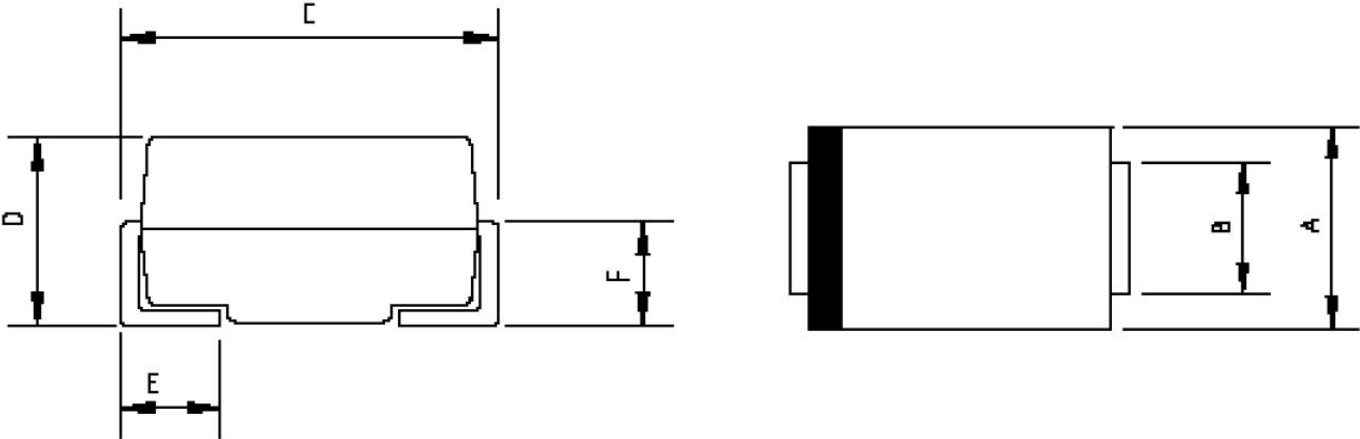


Set time base for 10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

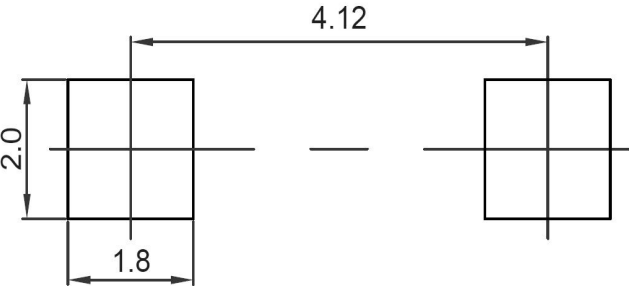
FAST RECOVERY RECTIFIER DIODE

SMA Package Outline Dimensions

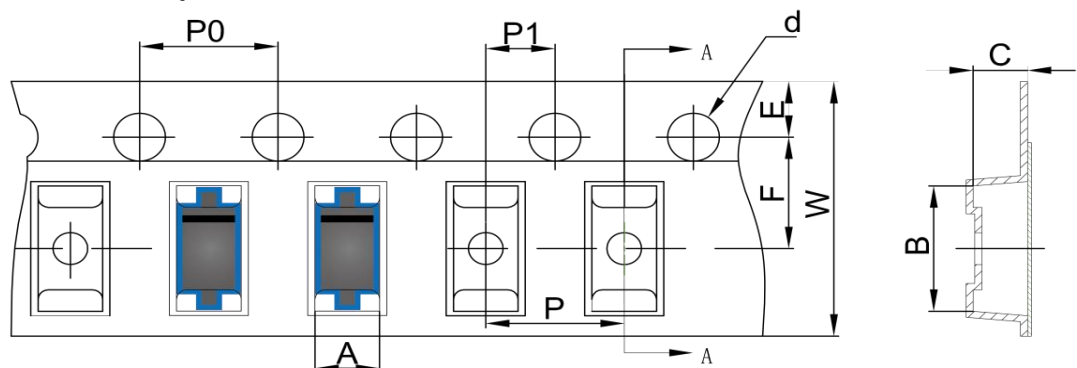


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.80	0.086	0.110
B	1.30	1.70	0.051	0.067
C	4.70	5.30	0.185	0.209
D	1.70	2.55	0.067	0.100
E	0.90	1.50	0.035	0.059
F	0.90	1.50	0.035	0.059

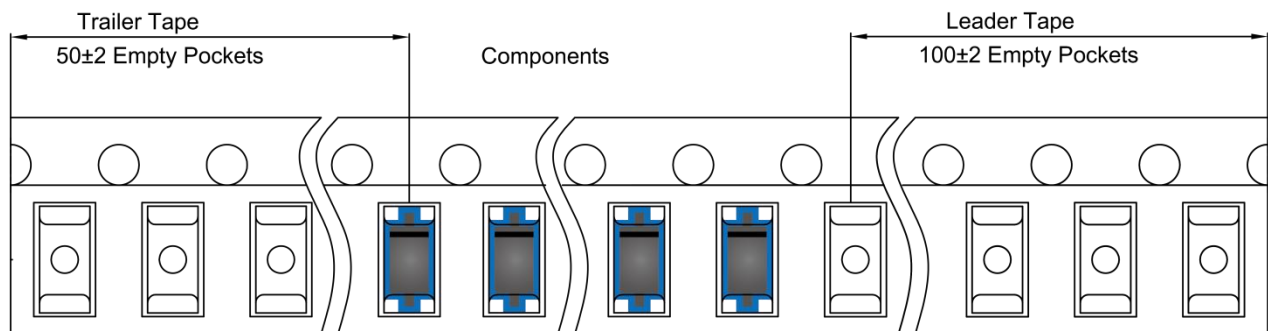
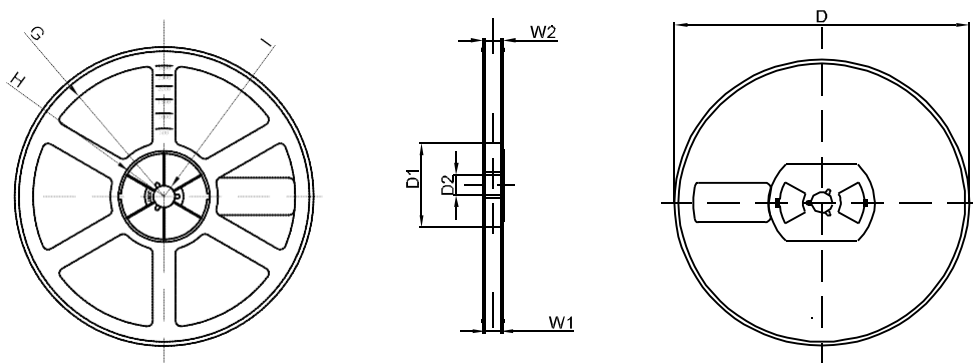
SMA Suggested Pad Layout



- Note:**
- 1. Controlling dimension: in millimeters
 - 2. General tolerance: $\pm 0.05\text{mm}$
 - 3. The pad layout is for reference purposes only

FAST RECOVERY RECTIFIER DIODE**SMA Tape and Reel****SMA Embossed Carrier Tape**

DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMA	2.89	5.35	2.68	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMA Tape Leader and Trailer**SMA Reel**

DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1